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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,939	03/09/2004	Hiroyuki Imadate	OPS C-639	4472

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FLYNN THIEL BOUTELL & TANIS, P.C.
2026 RAMBLING ROAD
KALAMAZOO, MI 49008-1631

EXAMINER	
OLANIRAN, FATIMAT O	
ART UNIT	PAPER NUMBER
2609	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/796,939	IMADATE, HIROYUKI	
	Examiner	Art Unit	
	Fatimat O. Olaniran	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-5 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-5 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 09 March 2004 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date All.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: paragraph 27 line 6-8 " ... when a plug is inserted into the terminal 4 the switch 31 is made open" and line18-19 " ...when the plug is inserted into the terminal 4 only, the switch 31 maintains the connection state". These lines are contradictory. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maejima (5,155,770) in view of Patterson et al (2004/0081099).

Claim 1, Maejima discloses an audio output control circuit (Fig. 1) comprising: two external input terminals each corresponding to R channel and L channel (col 2 line 21-23); a surround-processing circuit that processes audio signals outputted from the external input terminals so as to be reproducible in a surround-sound field; (col. 2 line 24-28) and a control circuit that controls the audio signals from the external input terminals in response to a detection signal from the detection circuit, so that the

surround-processing circuit processes the audio signals in a stereo mode or a monaural mode (col.3 line 5-8).

Maejima does not disclose a detection circuit that detects an insertion state of a plug into one terminal of the external input terminals. Patterson discloses a detection circuit that detects an insertion state of a plug into one terminal of the external input terminals (Fig. 2; 40, paragraph 47 line 5-8).

Therefore it would be obvious to one ordinarily skilled in the art at the time the invention was made to modify the discriminating circuit of Maejima with the plug detecting circuit of Patterson in order to have, circuitry that responds to the input of a particular plug which is useful in a device with several inputs.

4. Claim 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maejima (5,155,770) in view of Patterson et al (2004/0081099) in further view of Dombrowski (5,525,442).

Claim 4, as discussed with respect to claim 1, Maejima in view of Patterson does not disclose a switch between the two external input terminals, which normally puts the two terminals electrically into a connection state, and disconnects the terminals to interlock with the insertion of a plug into one of the terminals, wherein, when the plug is inserted into the other terminal only, a monaural signal from the outside is outputted from the two terminals as the audio signals. Dombrowski discloses a switch between the two external input terminals, (Fig. 1; third switch, MP) which normally puts the two terminals electrically into a connection state, (Fig. 1; third switch, MP) and disconnects the

terminals to interlock with the insertion of a plug into one of the terminals (col. 3 line 31 "the switches may be programmed by a microprocessor") wherein, when the plug is inserted into the other terminal only, a monaural signal from the outside is outputted from the two terminals as the audio signals (col. 3 line 33-37). Therefore it would be obvious to one ordinarily skilled in the art at the time the invention was made to modify the discriminating circuit of Maejima with the detection circuit of Patterson and further with the mono/stereo switch of Dombrowski in order to provide monaural and stereo outputs depending on the state of the switch and the nature of the input signals at the input pair of terminals as taught by Dombrowski (col. 1 line 36-39).

Claim 5, as discussed with respect to claim 1 and 4, Maejima in view of Patterson does not disclose wherein the detection circuit detects a connection or disconnection of the switch. Dombrowski discloses wherein the detection circuit detects a connection or disconnection of the switch (Fig. 1 MP). Therefore it would be obvious to one ordinarily skilled in the art at the time the invention was made to modify the discriminating circuit of Maejima with the detection circuit of Patterson and further with the mono/stereo switch controlled by a microprocessor (MP) of Dombrowski in order to provide switches that may be programmed by a microprocessor based upon a logical interpretation or sensing of the location of the input signals as taught by Dombrowski (col. 1 line 30-33).

5. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamatsu (5040220) in view of Patterson et al (2004/0081099).

Claim 2, Iwamatsu discloses an audio output control circuit (Fig. 2) comprising:

plural types of stereo signal output circuits (Fig. 2; 20, 44,46,56,58) that output R-channel and L-channel audio signals; (Fig. 2; 36, 60, 62)

two external input terminals each corresponding to the R channel and L channel; (col. 17 line 8-10 Fig. 8a)

a surround-processing circuit that processes the R-channel and L-channel audio signals so as to be reproducible in a surround-sound field (col. 6 line 3-6);

a two-channel signal switching circuit that switches the audio signals outputted from the stereo signal output circuits or the external input terminals to output to the surround-processing circuit and (col. 4 line 41-45);

a control circuit (col. 19 line 33-39, line 63-68; output selection circuit, mode selection circuit and CPU200) that controls to switch the two-channel signal switching circuit in response to a selection signal for selecting either of outputs from the stereo signal output circuits and the external input terminals, (col. 4 line 44-46 "output selection circuit") and that controls the audio signals from the external input terminals in response to a detection signal from the detection circuit, so that the surround-processing circuit processes the audio signals in a stereo mode or a monaural mode (col. 4 line 45-46, " mode selection circuit ").

Iwamatsu does not disclose a detection circuit that detects an insertion state of a plug into one terminal of the external input terminals.

Patterson discloses a detection circuit that detects an insertion state of a plug into one terminal of the external input terminals (Fig. 2; 40, paragraph 47 line 5-8).
Therefore it would be obvious to one ordinarily skilled in the art at the time the invention was made to modify the input of the audio circuit of Iwamatsu with the plug detecting apparatus of Patterson in order to have, circuitry that responds to the input of a particular plug which is useful in a device with several inputs.

Claim 3, Iwamatsu discloses plural types of stereo signal output circuits (Fig. 2; 20, 44,46,56,58) that output R-channel and L-channel audio signals; (Fig. 2; 36, 60, 62) two external input terminals each corresponding to the R channel and L channel; (col. 17 line 8-10 Fig. 8a)
a multi-channel signal output circuit that outputs audio signals corresponding to multi-channels;(col. 5 line 16-19, line 26)
a surround-processing circuit that processes the audio signals outputted from the stereo signal output circuits or the external input terminals so as to be reproducible in a surround-sound field; (col. 6 line 3-6)
a two-channel signal switching circuit that switches the audio signals outputted from the stereo signal output circuits or the external input terminals to output to the surround-processing circuit; (col. 4 line 41-45 "output selection circuit 28")
a multi-channel signal switching circuit that outputs to switch the audio signals outputted from the multi-channel signal output circuit or the surround-processing circuit; (col. 4 line 41-45 "output selection circuit 28") and a control circuit that controls the two-channel

signal switching circuit and the multi-channel signal switching circuit in response to a selection signal for selecting any of outputs from the stereo signal output circuits, the external input terminals, and the multi-channel signal output circuit, and that controls the audio signals from the external input terminals in response to a detection signal from the detection circuit, so that the surround-processing circuit processes the audio signals in a stereo mode or a monaural mode (col. 19 line 33-39, line 63-68; output selection circuit, mode selection circuit and CPU200).

Iwamatsu does not disclose a detection circuit that detects an insertion state of a plug into one terminal of the external input terminals. Patterson discloses a detection circuit that detects an insertion state of a plug into one terminal of the external input terminals (Fig. 2; 40, paragraph 47 line 5-8).

Therefore it would be obvious to one ordinarily skilled in the art at the time the invention was made to modify the input of the audio circuit of Iwamatsu with the plug detecting apparatus of Patterson in order to have, circuitry that responds to the input of a particular plug which is useful in a device with several inputs.

6. The prior art made of record and not relied upon that is considered pertinent to applicant's disclosure. JP 05292427

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fatimat O. Olaniran whose telephone number is 571-270-3437. The examiner can normally be reached on M-F Alt F off 8:30-5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hai Tran can be reached on 571-272-7305. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FO

HAI TRAN
PRIMARY EXAMINER